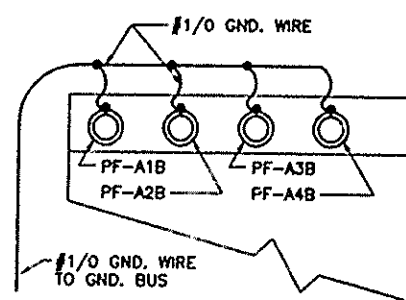


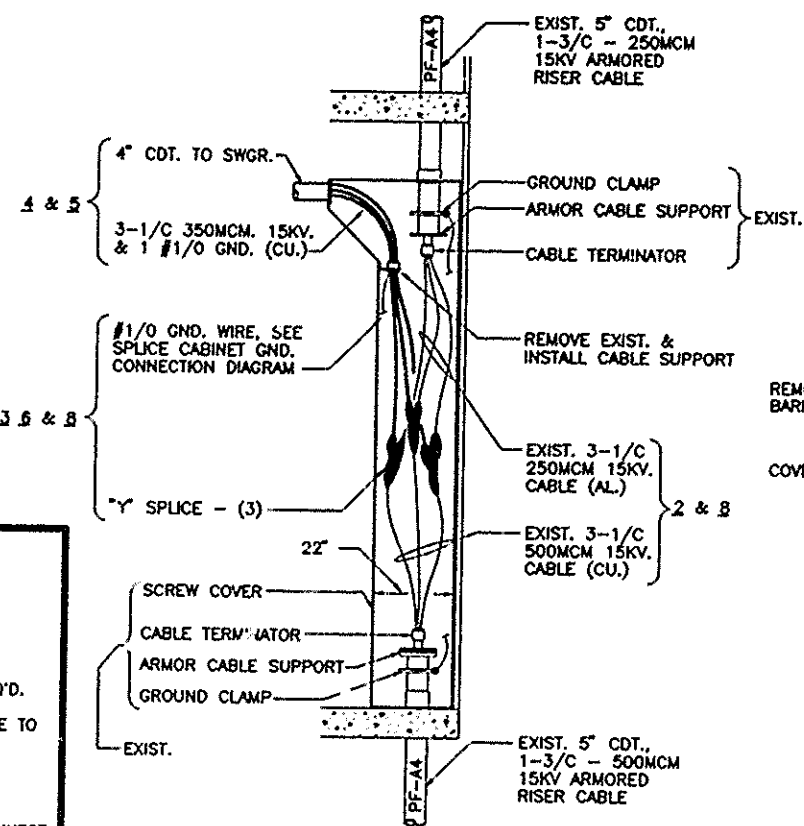
SPICE CABINET GROUND CONNECTION DIAGRAM
TYPICAL FOR STEP 3 & 6
NOT TO SCALE



SECTION a-a

STEPS REQUIRED FOR 15KV FEEDER INSTALLATION

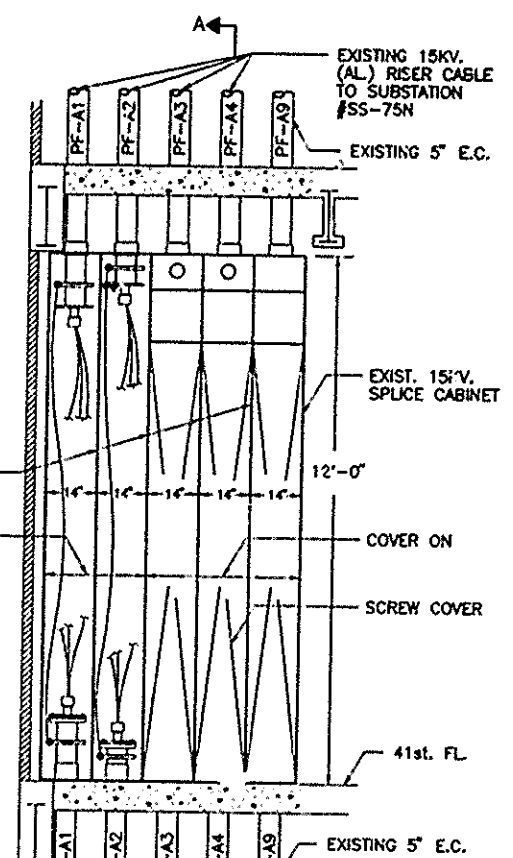
1. - DE-ENERGIZE FEEDER.
2. - REMOVE EXIST. ARCPROOFING.
3. - BREAK EXIST. SPLICES (3) AND DISCONNECT GND. WIRE AS REQ'D.
4. - REMOVE EXIST. CONDUIT & WIRE TO 1500KVA TRANSF. SWITCH.
5. - INSTALL CONDUIT & WIRE TO 2000KVA TRANSF. BKR. HV-B.
6. - RE-MAKE SPLICES (3) AND CONNECT GND WIRING AS SHOWN. (REMOVE BARRIER IF REQ'D.)
7. - MAKE CONNECTIONS AT 2000KVA TRANSF. BKR. HV-B.
8. - INSTALL ARCPROOFING.
9. - TEST FEEDER AND RE-ENERGIZE.



SECTION A-A
NOTE: PF-A1, A2, & A3 ARE TYPICAL

DETAIL "A" 15KV. SPICE CABINET

0 1 2 3 4 5
SCALE IN FEET

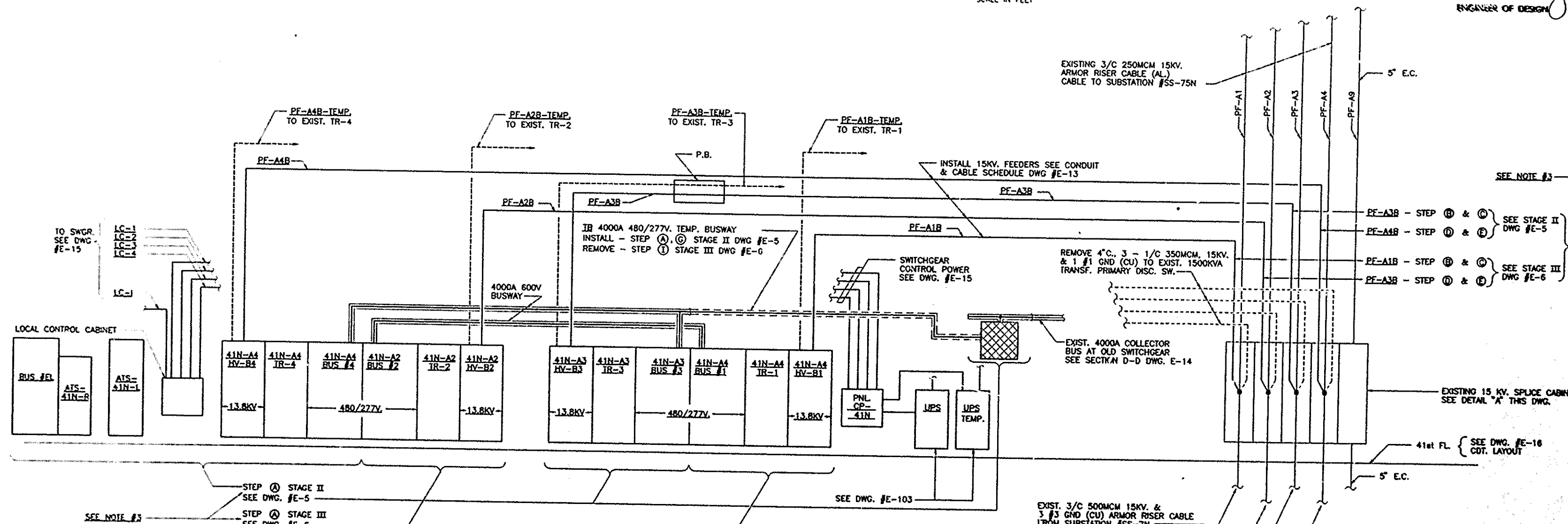


SPICE CABINET
FRONT ELEVATION

NOTES

1. - FOR LEGEND SEE DWG. E-1. FOR GENERAL NOTES, ABBREVIATIONS AND LIGHTING FIXTURE SCHEDULE SEE DWG. E-2
2. - FOR CONSTRUCTION STAGING SEE DWG. #CS-1
3. - FOR WORK PERFORMED ON SUBSTATION SS-41N IN STAGE II & III SEE THE FOLLOWING DRAWINGS:
 - * STAGE II ONLY
DWG #E-5 - TYPICAL SUBSTATION
DWG #E-18 - LOAD TRANSFER
 - * STAGE III ONLY
DWG #E-6 - TYPICAL SUBSTATION
DWG #E-18 & 19 - LOAD TRANSFER
 - * COMBINED STAGE II & III
DWG #E-11 (THIS DWG) SWGR. EQUIP.
DWG #E-12 - 450V ONE LINE DIAGRAM
DWG #E-13 - CDT. & CABLE SCHED.
DWG #E-14 - SWGR. EQUIP. PLAN
DWG #E-15 - 41st FL. CTR. CDT.
DWG #E-16 - 41st FL. CDT. LAYOUT
DWG #E-17 - 42nd FL. CDT. LAYOUT

I HEREBY CERTIFY THAT THIS IS A TRUE AND CORRECT COPY OF ONE OF THE CONTRACT DRAWINGS CONSTITUTING A PART OF CONTRACT NO. WTC-802.071 IN THE FORM IN WHICH SAID DRAWINGS EXISTED AT THE TIME THE SAID CONTRACT WAS EXECUTED BY THE PARTIES.
DATE 8/21/95 *Santhan A. Aslam* SPEC. WRITER
DATE 8/15/95 *Peter K. Swannay* ENGINEER OF DESIGN



RISER DIAGRAM
15KV. FEEDERS & SWGR. BUSWAY
NOT TO SCALE

THE PORT AUTHORITY
OF NY & NJ

Peter K. Swannay
ENGINEERING PROGRAM MANAGER
WORLD TRADE CENTER
CHIEF ELECTRICAL ENGINEER

Engineering Department
Design Divisions

The World Trade Center
Electrical/HVAC
Upgrade Program

TOWER ONE AND TWO
LOW VOLTAGE
SUBSTATIONS
CONSTRUCTION AND
INSTALLATION

ELECTRICAL
SUBSTATION SS-41N
STAGE II AND III
SWITCHGEAR EQUIPMENT
RISER DIAGRAM

No. Date Revision Approved
This drawing subject to conditions in contract. All inventions, ideas, designs and methods herein are reserved to Port Authority and may not be used without its written consent.
LEAHY/FISCHER LEAHY AS
Designed by Drawn by Checked by
Date 5-1-85 Scale AS NOTED
Contract Number Drawing Number
WTC 802.071 E-11